

AMENDMENTS

In the Claims:

Please amend the above-identified application pursuant to the revised practice set forth in the Notice entitled "Amendments in a Revised Format Now Permitted" and published in the Official Gazette on February 5, 2003.

- B¹ |
1. **(Currently Amended)** A flash CVD process carried out in a reaction chamber, said flash CVD process comprising:
 - admitting one or more source precursor gases into the reaction chamber;
 - heating a substrate by resistive heating to a temperature greater than or equal to a decomposition temperature of the one or more source precursor gases, over a period of time ranging from 3 seconds to 300 seconds; and
 - contacting the substrate with the one or more source precursor gases;
 - whereby the one or more source precursor gases is decomposed on the substrate.
 2. **(Currently Amended)** A flash CVD process according to claim 1, additionally comprising, after conclusion of the period of time, cooling the substrate to a temperature lower than the decomposition temperature of the one or more source precursor gases.
 3. **(Original)** A flash CVD process according to claim 2, wherein the substrate is cooled over a period of time ranging from 3 seconds to 300 seconds.
 4. **(Original)** A flash CVD process according to claim 2, wherein the step of cooling the substrate is performed while contact of the substrate with the precursor is maintained.
 5. **(Cancelled)** ~~A flash CVD process according to claim 2, wherein the steps are performed repeatedly in sequence.~~
 6. **(Original)** A flash CVD process according to claim 1, wherein the substrate

comprises graphite.

7. **(Original)** A flash CVD process according to claim 1, wherein the substrate is heated to a temperature ranging from 900°C to 2500°C .

8. **(Original)** A flash CVD process according to claim 7, wherein the substrate is heated to a temperature ranging from 1050°C to 1800°C.

9. **(Original)** A flash CVD process according to claim 8, wherein the substrate is heated to a temperature ranging from 1250°C to 1800°C.

10. **(Original)** A flash CVD process according to claim 1, wherein the substrate is heated over a period of time ranging from 10 seconds to 100 seconds.

11. **(Original)** A flash CVD process according to claim 1, wherein the substrate is heated over a period of time ranging from 20 seconds to 30 seconds.

12. **(Cancelled)** ~~A flash CVD process according to claim 1, wherein the substrate is resistively heated.~~

13. **(Original)** A flash CVD process according to claim 1, wherein the period of time is about 30 seconds.

14. **(Original)** A flash CVD process according to claim 1, additionally comprising admitting a carrier gas into the reaction chamber.

15. **(Original)** A flash CVD process according to claim 14, wherein the carrier gas comprises helium.

16. **(Original)** A flash CVD process according to claim 1, wherein the one or more source precursor gases comprises methane.

17. **(Original)** A flash CVD process according to claim 16, wherein the one or more source precursor gases comprises methane and the carrier gas comprises helium.

18. **(Currently Amended)** A flash CVD process according to claim 17, wherein the ratio of methane to helium ranges from 0.5 to 27.5, volume/volume.

19. **(Currently Amended)** A flash CVD process according to claim 18, wherein the ratio of methane to helium ranges from 0.5 to 10, volume/volume.

20. **(Currently Amended)** A flash CVD process according to claim 19, wherein the ratio of methane to helium ranges from 0.5 to 2.75, volume/volume.

21. **(Original)** A flash CVD process carried out in a reaction chamber, said flash CVD process comprising rapid transition from a first value of one or more process parameters to a second value of said one or more process parameters over a period of time ranging from 3 seconds to 300 seconds, said one or more process parameters comprising substrate temperature, reaction chamber gas composition, reaction chamber pressure, gas flow rate, applied electric field strength, and applied magnetic field strength, with the proviso that the one or more process parameters does not solely comprise reaction chamber gas composition; and wherein the substrate is heated to a temperature greater than or equal to a decomposition temperature of the one or more source precursor gases.

22. **(Currently Amended)** A flash CVD process according to claim 21, wherein said one or more process parameters is substrate temperature.

23. **(Currently Amended)** A flash CVD process according to claim ~~23~~21, wherein said one or more process parameters is substrate temperature and one or more selected from the group consisting of reaction chamber pressure, gas flow rate, applied electric field strength, and applied magnetic field strength.

24-42. **(Withdrawn)**